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THE JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION

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ORIGINAL ARTICLES

A BRIEF STUDY OF INFLUENZA.*

Lt. J. M. Perret, M. C., U. S. N. R. F.,

Pensacola, Florida.

The subject which I have chosen will, I hope, prove acceptable to you. It is a very extensive one and with the time which I have at my disposal tonight, I fully realize that it can not be covered very thoroughly. It will, however, give us a chance to compare our experiences and, hence, we will be able to derive mutual benefit.

The name "influenza" is derived from the Latin, "*Ab coeli occultes quadam influentia,*" which, translated into English, means "from some hidden influence in the sky." Considering the present state of our knowledge, it seems to have been appropriately named. Hirsch, in his Handbook of Geographical and Historical Pathology, gives many interesting facts about its history. It seems probable that the disease dates back to prehistoric times, for the earliest recorded observations give references to a disease which was similar to influenza. The first clearly recognizable epidemic occurred in Italy, Germany and England in 1173, and between that year and 1875, 299 epidemics are recorded. I will only allude to those pandemics of influenza which spread throughout the whole world; these were in 1580, 1729-33, 1781-82 (beginning in China and India), 1788-90 (beginning in Russia), 1799-1803 (beginning in Russia), 1830-33, 1836-37 (beginning in Australia), 1889-90 (beginning in Turkestan), and finally the great pandemic which reached America in the fall of 1918.

The exact number of people that have been attacked is purely a subject for speculation, as all the cases have not been reported. Jordan estimates that about one-third of the people in this country were attacked and that 2 per cent of these died, which would give us about 30,000,000 cases and 600,000 deaths in the United States alone. It is at once apparent that influenza was far more serious for us than the Great War.

In the United States Navy there were from July 13th to December 14th 80,683 cases, and as the estimated complement was 500,000, this would give us an incidence of 16 per cent, and as there were 4,009 deaths the mortality was 4.96 per cent. At the Naval Air Station the complement was 5,359, and as we had 1,454 cases, the case incidence was 27 per cent, and as we had 24 deaths, our mortality was 1.6 per cent. At the United States Naval Hospital at Washington, D. C., there were 568 cases with a mortality of 5.4 per cent. At the receiving ship at Charleston, S. C., there were 1,157 cases with a mortality of 1.64 per cent. At Fort Stanton, New Mexico, where there is a Tuberculosis Hospital, 149 of the 300 patients contracted influenza and the mortality was 18 per cent.

The mortality rate of influenza is put down by Osler as being very low. He cites 55,263 cases in the German Army, with a mortality of 0.1 per cent, and 22,972 cases occurring in the civilian population of Munich with a mortality of 0.5 per cent. These figures do not have reference to the recent epidemic. Unfortunately in this outbreak the disease has exacted a much higher toll.

When Shaar and myself reported our study of the epidemic of influenza at the Naval Station we were of the opinion that the damage which the respiratory tract had suffered would weaken its resistance to the

*Read before the Escambia County Medical Society at Pensacola, May 13, 1919.

pneumococcus and meningococcus so that pneumonia and cerebro-spinal fever would show a marked increase during the winter. We also thought that dormant tuberculus foci would be lighted up. I am very glad that things did not turn out as we expected that they would. Infants and old people did not seem to be as susceptible as young and middle-aged adults.

The classification which has prevailed in the past was that of influenza vera, if the disease was caused by Pfeiffer's bacillus, and influenza nostras or grippe, if the symptoms were similar but the microorganisms were different.

Pfeiffer, in 1892, thus after the preceding pandemic, discovered a small gram negative bacillus which he thought was the specific cause of influenza. This view was generally accepted.

During an epidemic of influenza in Boston in 1907-08, Lord found B. influenza in practically pure culture in sputum of only 3 of 20 cases, and Davis in Chicago found the organism in only 4 of 24 cases. Later on Lord demonstrated B. influenza in about 30 out of 100 unselected cases of acute and chronic bronchitis; yet during this period there was no epidemic of influenza in the city. Thus long before the recent pandemic occurred there began to arise some doubt as to the relationship of B. influenza to influenza.

An enormous amount of bacteriological work has been done during the recent pandemic and in spite of this we must admit that we are still in the dark as to the etiological factor. It would be utterly impossible as well as inadvisable for me to try to bring before you all the work that has been done. I will quote just a few reports to give you some ideas as to the different findings.

At the Naval Hospital, Pensacola, we examined the sputums of 120 patients clinically diagnosed as influenza and the following information was obtained:

Sixty-six Uncomplicated Cases—

	Cases.	Per Cent.
Influenza bacillus	28	42.4
Pneumococcus	51	70.3
Micrococcus catarrhalis	20	30.3
Streptococcus	4	6.6
Staphylococcus	3	5
Fifty-four Influenzal Pneumonias—		
Influenza bacillus	33	61.1
Pneumococcus	48	88.4
Micrococcus catarrhalis	7	12.9
Streptococcus	4	7.3
Staphylococcus	2	3.7
Cultures of Influenzal Pneumonias, 8—		
Influenza bacillus	1	12.5
Cultures of Uncomplicated Cases, 31—		
Influenza bacillus	4	12.9

Ten nasal cultures were negative for influenza bacilli.

At the United States Naval Hospital, New Orleans, cultural examination of 200 sputums of influenza cases showed the following:

	Per Cent.
Bacillus influenza	29
Streptococcus	39
Pneumococcus	35
Staphylococcus	26
Micrococcus catarrhalis	23

During an epidemic of influenza on board the United States Steamship Leviathan 242 cultures from the sputum and 51 from the blood were made:

Sputum—	Cases.	Per Cent.
B. influenza	134	55.2
Streptococcus	94	39
Staphylococcus	8	3.3
Pneumococcus	6	2.5
Blood Cultures—		
Pneumococcus	8	15.75
Streptococcus	3	6
B. Influenza	2	4
No growth	38	74.25

In September, of 250 cases of influenza at Norfolk Hospital cultures from 65 sputums were made. The predominating organism was a hemolytic streptococcus. The B. influenza was found in 10 per cent of cases and then not in pure culture nor in large numbers.

At the United States Naval Hospital at Chelsea, Mass., 23 autopsies were held on influenza cases and the B. influenza was found in 82.6 per cent of the lungs and in 31.6 per cent in pure culture. Pneumococci and streptococci were frequently found.

The Japanese bacteriologists at the Kitasato Institute for infectious diseases at Tokyo are of the opinion that "the pandemic of influenza is due to Pfeiffer's bacillus."

Pritchett and Stillman, writing in the *Journal of Experimental Medicine*, have found B. influenza present in the mouth of 43 per cent of normal individuals working in a large hospital and in 93 per cent of influenza and broncho-pneumonia cases. They think, therefore, that the microorganism may be of significance in influenza.

Bloomfield and Harrop, Bulletin of the Johns Hopkins Hospital, came to the conclusion that the epidemic of influenza of 1918 is clinically identical with the disease as seen in previous pandemics. They frankly assert that proof is lacking that the Pfeiffer bacillus is the prevailing cause of uncomplicated influenza.

Howard also, in the Bulletin of the Johns Hopkins Hospital, thinks that B. influenza is merely a secondary invader, though in some cases it may be a frequent cause of terminal broncho-pneumonia. The navy has done some interesting work in attempting to transmit influenza to the human subject. This was rendered possible by volunteers who offered themselves for the experiments, although they knew well the seriousness of the results which might follow. The Boston experiments were carried on by Rosenau, Keegan, Goldberger and Lake. Sixty-eight volunteers were used. Forty-seven of these had not had influenza during the recent epidemic and thirty-nine never had had influenza in their life. A freshly isolated culture of B. influenza was instilled in the nose of three non-immunes and in three controls who had had influenza in recent epidemic. No cases developed. Later ten non-immunes were inoculated with negative results. Thirty men were subjected to inoculation by means of spray, swab, or both, of the nose and throat with secretions both filtered and unfiltered from the upper respiratory tract of typical cases of active influenza, but the results were negative. Ten volunteers who had been subjected to inoculation with secretions were allowed to come into contact with fresh influenza cases who were made to cough in their faces, but no cases developed. In ten cases secretions of influenza cases were injected by needle into the volunteers, but no cases developed.

The San Francisco experiments were conducted by McCoy and Richey. The volunteers had not been exposed to influenza and they had been vaccinated with a vaccine containing B. influenza, three types of pneumococci and hemolytic streptococci. Ten volunteers were divided into two squads; one group was given a heavy suspension of eight strains of B. influenza into the nostril and the other group had this emulsion passed through a Berkefeld filter; the results were negative. Forty volunteers were inoculated intranasally with an emulsion of secretions from the upper respiratory tract of active cases; negative results. Secretions were dropped into conjunctive of two volunteers with negative results. One c. c. of blood of an influenza case was injected subcutaneously into a volunteer, but he did not become sick. The unfiltered suspension used was found to contain B. influenza, pneumococci type IV and hemolytic streptococci.

It certainly seems strange that the disease could not be transmitted when we consider its great contagiousness and the fact that it has a strong tendency to spread in spite of the best efforts of the sanitarian.

The Father of Medicine was certainly wise when he said that "experience fallacious, judgment difficult." In an editorial under date of April 5, 1919, in the *Journal of the American Medical Association*, Kinsella is quoted as saying that "influenza is a disease caused by some yet undiscovered agent, which produces inflammation of the entire respiratory tract and effects a very pronounced lowering of resistance which is perhaps expressed by the constant and striking leucopenia." These views come very near expressing the true situation of our knowledge in reference to influenza.

The incubation period is short, usually one to three days. I recall the case of a father and mother of one of our patients who were called to see him as he was seriously ill with influenza, and both parents came down with the disease in forty-eight hours after seeing

him. They kissed him and the doctor afterwards told me that he had not had the heart to stop them.

At one time it seems that there was some doubt as to whether an attack of influenza conferred any immunity. Recently the evidence seems to show that there results some immunity.

Scocia relates an epidemic of influenza at Spezia Hospital during May and June, in which every one of the eighty nurses and attendants contracted the disease. Late in September the epidemic returned, but all the nurses were spared. Maillard and Burne at the Bicetre epileptic hospital say that none of their cases who had influenza in June contracted the disease when it reappeared in October.

We went over the records of 566 uncomplicated cases and found that the average number of sick days was 6.2. We had sixty-six relapses or 4.5 per cent. Had we been able to keep our cases longer we believe that our relapses would have been fewer. But it was a question of military necessity. During an epidemic, just as during an engagement, conditions are not always ideal and we must do the best that the circumstances will allow. Our object was to send the men out as quickly as was reasonably possible, so as not to interfere with military activities, and also to make room to care for those who were sicker and needed more attention. We found that the average sick days of the cases that relapsed had been very low, only 2.78.

Our epidemic lasted seven and one-half weeks, the peak was reached on the nineteenth day and we had 1,454 cases. Twenty-seven per cent of the complement became infected.

The clinical course has been essentially that of an acute infectious disease. The earmarks of the disease has conformed closely to the description set down in text-books on the practice of medicine. The onset, as a rule, was sudden with elevation of temperature; headache, muscular and joint pains, burning of the eyes, severe lumbar backache and great weakness soon developed. The prostration was well marked and often the patient would sleep most of the time for several days. After several days the patient would complain of pain under the sternum and which seemed to have its origin in the trachea and bronchi. As the cough became productive the chest pains would diminish. We observed nothing characteristic about the sputum. Epistaxis was rare in our cases. In some localities, however, it was frequent, thus it occurred in 20 per cent of the cases on the United States Steamship Leviathan. At Norfolk, out of 962 cases there were eighty of epistaxis.

An analysis of 680 fever charts of uncomplicated cases showed that 357 or 52 per cent had had a temperature ranging between 102° F. and 104° F. A careful study of 144 fever charts was undertaken to see whether there was anything peculiar about the fever curve. We noticed that 10 per cent of the cases ran a course with a double paroxysm of fever. The afebrile period would last twenty-four hours and would be followed by a secondary rise, which in all cases but two was lower than the first fever. The secondary fever would last from two to four days. The fastigium would not always be reached within twenty-four hours; sometimes this would not be reached until the third to the fifth day. In some cases an early marked remission was noted, which was soon followed by a secondary rise. In the vast majority of cases, however, there was nothing remarkable in the fever, which was usually at its height within the first twenty-four hours, and then terminated by lysis reaching normal in from three to six days.

Of forty-seven pneumonia cases crisis was noted nineteen times and lysis twenty-eight. Our experience has been that the pulse was rather slow. Of 200 observations made with temperature of 102° F. to 104° F. we have found it to average 89 per minute. Of 200 observations with a temperature of 102° F. to 104° F. the average respiratory rate was 21 per minute. The marked predilection of the influenza bacillus for the respiratory tract was quite noticeable.

Gastro-intestinal complications were rare. Physical signs in the uncomplicated cases were conspicuous by their absence. Injection of the conjunctivæ and slight redness of the throat were the usual findings. The lungs were clear in most cases.

Eichorst, a Swiss observer, paid particular attention to the heart. He found evidence of organic trouble due to influenza in only 0.3 per cent of his 2,411 cases. Functional disturbances such as tachycardia, bradycardia, extrasystoles and cardiac neuralgia were, however, extremely common.

The leucocyte count in forty uncomplicated cases averaged 7,800 per c.mm.; Keegan in twenty-eight cases found 6,700 to be an average. In twenty-nine cases of pneumonia our average was 10,200 and that of Keegan in thirty-one cases, 13,980.

The differential count is normal.

The urine of 200 uncomplicated cases was negative in 142, or 71 per cent, but in fifty-one influenza pneumonia cases it was negative in only 3, or 5 per cent. Out of our 1,454 cases we noticed the following complications and sequelæ:

	Cases.
(1) Pneumonia	79
(2) Unresolved pneumonia confirmed by X-rays	2
(3) Empyema	1
(4) Acute nephritis with pneumonia	7
(5) Otitis media, acute	13
(6) Otitis media, acute with pneumonia	4
(7) Subcutaneous emphysema	1
(8) Psychoses	2
(9) Frontal sinusitis	3
(10) Acute thyroiditis	1
(11) Phlebitis of left saphenous	1
(12) Acute cholecystitis	1
(13) Corneal ulcer	1
(14) Severe acute laryngitis	1

Of 995 cases on the United States Steamship Pittsburg there were noted:

	Cases.
(1) Broncho-pneumonia	108
(2) Lobar pneumonia	2
(3) Abscess of lung complicating broncho-pneumonia	8
(4) Otitis media, acute suppurative	25
(5) Arthritis	4
(6) Gastro-intestinal disturbances	15
(7) Acute conjunctivitis	6
(8) Meningeal symptoms	3

Lieutenant Bradbury reports a mild epidemic of 613 cases occurring among soldiers from May to July, 1918, and noticed the following complications:

	Cases.
(1) Broncho-Pneumonia	4
(2) Severe laryngitis	10
(3) Frontal sinusitis	1
(4) Discharging ears in old cases of chronic otitis media	2

Clark and Synott say that twenty cases of facial emphysema were seen in influenzal pneumonia cases at Camp Dix. The gas was usually in the tissues at the base of the neck and over upper potion of chest down to about the third rib. In two cases it was more extensive and reached arm, abdomen and flank. There were no subjective symptoms. The skin was not discolored. Distinct crepitation could be felt by the finger. Autopsy showed no signs of infection and the authors believe the gas to be the result of purely mechanical factors.

At the Naval Hospital we saw one case with the subcutaneous emphysema over entire front of the right side of the chest. This patient had a right-sided pneumonia and was also markedly jaundiced just as we see in cases of acute catarrhal jaundice.

One of our hospital corpsmen developed symptoms of dementia præcox following a severe attack of influenza, and one of our pneumonia patients became wildly delirious for several weeks; he improved after spinal puncture. Both made good recoveries.

Notkin saw two cases in which latent dementia præcox was whipped into marked cases; also two cases of acute mania and several other cases. He believes that a predisposition must exist. The onset of these psychoses is stormy, but the prognosis is favorable. Maillard and Burne had thirty-two deaths in sixty-three cases of influenza among epileptics. No seizures were noticed during the course of influenza.

Strause, of Chicago, says that loss of hair and mild menstrual disturbances have been exceedingly common.

From a practical point of view it is very important that we keep in mind chronic influenza. These cases may persist for several years and have abundant sputum, and some-

times blood-streaked sputum. These cases simulate pulmonary tuberculosis very closely.

Pneumonia has been the most frequent as well as the most serious complication of the epidemic. It has accounted for all our fatalities. The average number of days from the onset of influenza to the development of pneumonia in sixty-three cases averaged 5.6 days.

The onset was insidious. A chill, pleuritic pain and herpes were very uncommon. Delirium was frequent. A dusky color of the skin and cyanosis were early and striking features. The rusty, thick and sticky sputum characteristic of pneumococcic lobar pneumonia was rarely noticed. A few cases early in the disease expectorated bright-red blood. The fever ranged between 102.5° F. to 105° F., continuous, and having slight remissions. In the majority of cases it terminated by lysis. The respirations were increased as in ordinary pneumonia cases. The physical signs were fairly constant. They were always bilateral, but far more marked in one lung in most cases. The first evidence of the trouble would be found at the bases posteriorly. In one lung there would be evidence of a small consolidated area deeply seated, *i. .e.*, slight dullness, broncho-vesicular breathing, distant bronchial breathing or whispered pectoriloquy. At the opposite base one would hear subcrepitant rales. If the case was re-examined at the end of twenty-four to forty-eight hours, evidences of a massive consolidation could now be made out in one lung and the physical signs would not be well marked in the other lung. Whispered pectoriloquy was our most valuable aid in arriving at an early diagnosis of lung consolidation.

Although our cases, as we have gathered them from the records, show twenty-five cases of lobar pneumonia out of seventy-nine cases of pneumonia, we believe that this is too high an incidence. It must be remembered that the broncho-pneumonias in this epidemic were not typical and that so much lung tissue was involved that the diagnosis of lobar pneumonia made on clinical findings was excusable. Usually a diagnosis of broncho-pneumonia has to be made on signs of a localized bronchitis with symptoms of pneumonia. The insidious onset, the rarity of pleural involvement and rusty sputum together with the low blood-count, ought to have made us favor a diagnosis of broncho- instead of lobar pneumonia.

Autopsy findings which have been reported have shown that the lesions were those of massive broncho-pneumonia in the vast majority of cases.

5.4 per cent of our 1,454 cases of influenza developed pneumonia.

At Charleston, S. C., 5.6 per cent of 1,15? cases of influenza contracted pneumonia.

The prophylaxis, theoretically, should be on similar lines as that for any acute infectious respiratory disease. Droplet infection and finger contamination are perhaps the greatest disseminators of the infection. When we recall the Boston and San Francisco experiments, we are forced to admit that we are not positive as to how the infection is spread.

The experience gathered from an experiment at the United States Naval Training Station at Great Lakes, Ill., with the gauze mask is interesting. There were 5?4 hospital corpsmen and volunteers, ninety-six of whom wore gauze masks, 8.3 per cent of these wearing masks contracted influenza and ?.9 per cent of those who did not wear masks. Some very favorable reports however have been made as to the value of masks in the prevention of the spread of droplet infection.

Gilmar is very enthusiastic about urotropin. He administered five grains three times a day to 611 cases, and only one developed influenza and this man had not taken his urotropin regularly.

Betti relates that among 1,100 malarial soldiers taking treatment for malaria at Lake Como, only five contracted influenza and they had mild cases.

Recio used a polyvalent vaccine on 300 cases and only five developed influenza. He

vaccinated 100 children at Carraguez and none contracted the disease.

Mann, of Quantico, Va., relates his experience with 200 Marines, 108 of whom had received one or more injections of influenzal vaccine. He says that the disease was less severe in the vaccinated cases.

A very interesting contribution is that of Sherman, of Pittsburg, at the Homestead plant. Among 1,687 employees who were not inoculated, 588 or 30 per cent contracted influenza and there were 42 deaths, 2.5 per cent. Five hundred and ninety-six received one inoculation, 213 or 3.5 per cent contracted the disease and there were nine deaths, 1.5 per cent. 5,222 received two inoculations, 174 or 3.2 per cent became infected and there were four deaths, 2.3 per cent. 4,720 received three inoculations, 63 or 1.4 per cent contracted influenza, but there were no deaths.

Treatment is rather unsatisfactory. Rest in bed, hydrotherapy internally and externally, a mild purgative, Dover's powders, aspirin and the salicylates and meeting the symptoms as they arise, give about as good results as any treatment we have. It is my opinion that the patient should have as much food as he can handle, being guided by the appetite. This will supply him with antibodies to overcome the infection. Drastic purgation is inadvisable as the patient is already too weak.

Giuseppi, an Italian observer, treated 250 cases with camphor and one died. In another series of 200 cases treated without camphor he had four deaths. He gives four grains of camphor three times a day or every 3 hours in bad cases.

Mann had an experience with 3,000 cases. He believes that the disease is essentially a toxemia. He uses small doses of calomel to stimulate the liver. One-fourth grain is given every half hour for six or eight doses, then one-tenth grain three times a day for three days. Results are said to be good.

Other observers have claimed wonderful results by use of alkalies.

Kennedy and others have reported good results from the use of convalescent human serum in cases of influenzal pneumonia. He used it in thirty-seven cases of pneumonia and lost only one case. At first his mortality without serum was from 50 to 60 per cent, later dropping to 30 per cent.

Gould, at United States Naval Hospital at New York, had 320 cases of influenzal broncho-pneumonia, with a mortality of 26.16 per cent. He treated 30 cases with the serum of convalescent patients and only lost two.

Our treatment here has been along general lines. The treatment was begun with five grains of calomel in one dose, followed by a saline. The calomel was given in one dose as we did not wish to disturb the patient any more than was absolutely necessary. As our patients were young adults and in good physical condition before the onset of their present disease, this treatment did not seem too drastic.

We have gone over 780 routine urinalyses made at the hospital and have found indican in 450, or 57 per cent, of the urines. This gives us an idea of putrefaction going on in the bowel and makes us feel that a purgative at the onset of an infectious disease is not superfluous.

Whiskey, one-half ounce, well diluted with water, was used every four hours as a matter of routine when the pulse became weak. It did not seem to do any good and I confess that my faith in alcohol as a stimulant is about shattered.

Tincture of digitalis, thirty drops every four hours by mouth, or ten to fifteen minims by hypodermic in very bad cases, seemed to be of real value. If we were asked which was the one best stimulant in pneumonia we would have no hesitation in saying that it was digitalis. The tincture by needle is a little irritating and painful and is sometimes followed by some induration, but we did not see any abscesses follow.

Another drug that appeared to do good when the patient was restless and could not sleep was codeine sulphate, one-half given by hypodermic. Trional in five- to ten-grain doses acted well.

In the early days of the disease, when bright-red blood was expectorated, a hypodermic of atropine sulphate acted beneficially. Later on, when there were coarse rales and edema of the lungs was developing, atropine would do no good. The patient would drown in his own secretions.

Camphor in oil, strychnine sulphate, caffeine and sodium benzoate were all tried, but seemed to be of very little value.

Spinal puncture, using cocaine half per cent solution as a local anesthetic, was used in one case which was wildly delirious; 20 c.c. of clear fluid under pressure were relieved and the patient was quiet for six hours. He made a good recovery.

Spinal puncture should be used more frequently in delirious pneumonia cases. Venesection was done in two cases showing cardiac embarrassment. 180 to 200 c.c. were removed. The patients were relieved for a few hours. Perhaps if we had done this earlier it might have done more good. Some men have been very enthusiastic about bleeding and then infusing in pneumonia. Oxygen was given by inhalation when the patients became cyanosed. It proved useless. I know of only one case that it helped. In two cases we gave oxygen by needle in the subcutaneous tissues of the abdominal and thoracic walls. An important precaution in carrying out this procedure is to insert the needle subcutaneously and see that it is not in a vein. I merely used the hypodermoclysis needle and tube and connected them to the oxygen tank. The purpose of using this method is based on the theory that the erythrocytes are capable of utilizing the oxygen and make up for the difficulty of oxygen absorption in a lung which is extensively involved and where the exudate is so excessive as to diminish the surface of contact between the blood and oxygen inhaled and that the latter is not absorbed in sufficient amount to sustain life. Another advantage is that the oxygen is held in a reservoir, as it were, and can be utilized continuously.

The use of oxygen by needle is not new, it was used by a Mexican named Lopez six years ago. It seems worthy of trial.

We allowed our pneumonia patients to sit up in bed for one hour, using a back rest, seven days after the temperature had been normal. The time was gradually lengthened so that in about two weeks after the fever had subsided they would be walking about.

ORGANIZING FOR COMMUNITY HEALTH.*

O. H. Cox,

Passed Assistant Surgeon, U. S. P. H. S., Pensacola, Fla.

Mr. President and Members of the Florida State Medical Association and Visitors:

My purpose for appearing before you is several-fold. Surgeon General Rupert Blue ordered me to attend your meeting to represent the United States Public Health Service.

I have been on duty in the state sixteen months and have a fair acquaintance with men, affairs, and events from the point of view of sanitation. I count the members of the state health organization and all the state's physicians as good friends. I hail from West Florida now, and am possibly the only representative for Pensacola and Escambia county.

But *personally* I am more than delighted to be allowed the privilege of mingling with the doctors of Florida on more than a mere guest basis. Really, I feel like one of you. The meeting in Tampa last year decided me to attend repeatedly if possible.

My narrative may seem outside your immediate interests, but please forbear and consider that there is supposed to be a moral to adorn the tale, namely, "You can accomplish most anything worth-while along public health lines, if you can *get the people to understand.*"

Nobody with a properly functioning mind nowadays denies that sanitation pays. How

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*Read before the Forty-sixth Annual Meeting of The Florida Medical Association, at Miami, May 20-22, 1919.

to prevent certain diseases and keep up the general public health to a better degree has become more than a theory. Therefore we have official organizations for health. A brief sketch of these agencies may be used as a setting for further remarks.

The Public Health Service, in which Federal activities center, is mostly advisory and least executive when applied to national domestic problems.

State boards of health are more advisory and less executive within their own boundaries. Remember no two are organized the same. Local organizations are least advisory and most executive or administrative, and the county is a comfortable unit to handle.

All have grown up from an original idea of self-preservation and the local board of health was the first to organize in colonial days. The State and Federal Boards came into being as interstate and international intercourse became more complex.

In accordance with the provision of the Federal Constitution, powers not expressly delegated by that legal instrument to the Federal Government are reserved by the individual states to themselves. Therefore all laws of sanitation and public health must be in conformity with state laws, although we must consider interstate relations. There seems to be no reason why the Public Health Service should not assist state boards of health in raising the standards of administration among the local health organizations where most executive authority lies. In this way all are synchronized and have the benefits of special investigations and expert advice.

Many of these theories of sovereignty have gone by the board during the war period or have been worked out in practical affairs much to the advantage of all concerned, it is believed. This is illustrated by the methods followed for sanitation in the extra-cantonment zones all over the country.

Official orders during the first week of February, 1919, transferring me from the extra-cantonment zone of Camp Joseph E. Johnston at Jacksonville to Pensacola, read in part, "You will confer with state and local health officials with a view to placing health activities on a better basis." This may serve to illustrate what should be the mutual attitude of the three primary health organizations whose duties we have sketched.

A free translation of such orders is necessary. How would you proceed at each turn?

Geographically we found Escambia to be the last of the western tier of counties bordering along the gulf. The entire population is around 75,000 people.

Pensacola is the only incorporated city and has perhaps 50,000 of the county's population. This would make its proportion two to one or two in three.

Naturally the city has a splendid harbor, the topography is rolling sufficiently to insure drainage, the climate is good, the soil fair, and inland waterways are at hand.

Industrially there exists a large naval air station, an army post, a shipyard, two railroads, water-shipping facilities, oil terminals, a turpentine plant, and a number of other important activities of trade.

But while enumerating these many advantages there is apt to go through one's mind the old tune of "Greenland's Icy Mountains," because there was an unconsolidated public spirit which is very difficult to define. It would meet a man in solid phalanx any time he set forth on his round of duties. Perhaps this exists everywhere. To meet such a spirit of doubt requires perseverance while the various antagonistic forces are being lined up for concerted progressive action in public health matters.

Since last summer when the amount of typhoid fever amounted to virtually an epidemic (with over thirty deaths in Pensacola), some attempts had been made through the fall and winter to remedy conditions, mostly as to the cause of it. Prejudice and opposition were still strong, however, and there was needed a more definite expression of public opinion through having all the people *understand* the situation. They are getting thoroughly awake, it is believed now.

The following resumé of the health de-

partment which did exist in Pensacola and its purposes may serve to demonstrate why efforts for better sanitation were so difficult and barren of proper results. It may be typical of many cities, large and small:

(1) One of the three city commissioners is designated as Commissioner of Health, by the consent of the other two.

(2) A local physician is appointed by him to serve under his direction as part-time Health Officer, and also to act as City Physician.

(3) The force consisted of six men, appointed by the Commissioner of Health. Four were field sanitary inspectors, one was milk and dairy inspector, and the other food and market inspector.

(4) Morbidity reporting by physicians was practically negligible. Some oppose it bitterly.

(5) No provision was made for medical or nursing inspection of schools.

(6) There existed 3,000 surface privies among the 5,000 and odd houses in town.

(7) Shallow open and driven wells abounded to the number of 400 and more.

(8) Restaurants and all food handlers were not systematically checked in any insanitary practices they wished to follow.

(9) Most any kind of milk could be sold in town as long as the dealer paid for his license.

(10) Drainage involving the mosquito and malaria problem was not considered.

The State Board maintained a sanitary patrolman in that region and a well-equipped and well-manned laboratory. Of course the district Health Officer could not devote all his time to that section.

The storm center seemed to be around the box-and-can privy system. With a proper scavenger system and close supervision this is the best and only way to dispose of human excreta, especially where living conditions are crowded. An ordinance had been adopted by the city to this effect and approved by the State Board of Health, which is legal and proper. There were many objections to this system, and the best answer in support of it was to state that if a properly functioning health department was organized and put into operation effectively, maintenance would not be impossible.

The main reason for preparing this paper is to demonstrate to you the many vicissitudes and unexpected turns one finds when he begins to organize a community for health. You, as physicians, understand that it is not well for excreta to lie exposed in back yards and along alleys for weeks and months at a time. You realize the need for cleanly prepared food and milk. You know the risks that need not be taken and how to avoid contracting contagious diseases. But the public does not fully understand and until they do understand and act accordingly, the public health official can not get the results that should be obtained.

After several days, with most of the facts in hand, it was decided to declare for a "new deal." Accordingly the Commissioner of Health was requested to:

"Appoint the Public Health Service officer as chief sanitarian for the city and to give the two men detailed by the service with him police power and other authority to carry out local regulations;

"Turn over the six city sanitary inspectors for use where needed. This was arranged as a mutual understanding;

"A survey of the unsewered sections was begun on March 1st to determine especially where sanitary privies must be installed. Observation was made of course on other conditions such as wells and stables. The sanitary conditions on all such premises were therefore indexed by the survey cards with all other information necessary."

If you, in your community, should happen to be in charge of the installation of a privy system of this kind, which is the next best to a sewer, you may have the same trouble as was encountered in Pensacola in determining on details. It may look difficult to get a reliable scavenger. But if a good disposal wash station is built, the uniform-sized heavy galvanized iron cans, 15 by 15 inches, are easily handled. Our first ordinance, which

called for a fixed contract price on all boxes and outfits, was repealed March 3d because it looked too oppressive, and some of the commissioners declared that the people should be given full choice in construction as long as they built according to specifications. The main ideas were incorporated in a second ordinance a week after the first was repealed, and the work proceeded so well that from the 10th of March to the middle of April nearly 1,000 boxes and cans were installed. "Periscopes," as our boys call the flue-vent pipes, could be seen sticking up all over town. Then a heavy property owner, representing a group of others also, decided to attack the validity of the ordinance. On two counts the judge decided against it. It was claimed that for the kind of building that must have a privy it was not specific enough. Also that the Commissioner of Health was given too much discretionary power in extending time for compliance over the regular fifteen days after notice was served, though good cause could be shown. Apparently no trust was to be shown for any man elected by the people.

At this time the State Supreme Court has not passed on the ruling, though it was appealed promptly by the city attorney. The plaintiff, however, "came into camp" and gave orders to have his privies installed. But even this served to delay and hinder the work of sanitation. Everybody stopped building and held their breath, so to speak, waiting to see what would happen. A new ordinance was drafted and did not come up for third reading and final passage until May 13th. A whole month had been lost on account of a few wilful mischief-makers. It was more stringent than before.

A petition with several hundred signers purporting to ask for a special bond issue to extend sewers and not to pass the ordinance was presented. Strong support of this movement was expected and citizens in support of the ordinance appeared in considerable numbers prepared to talk for it. The Rotary Club, whose name signifies the kind of men in it, appeared in a body fifty strong and voiced their sentiments for sanitation now when it is needed. A humorous incident to break the more tense condition of affairs occurred when several men rose to ask their names to be stricken from the petition, giving a little insight into the psychology of petitions in general. They had not realized what it would mean to the welfare of the city to have the ordinance killed. There now should exist no doubt as to where a privy must be provided and fifteen days only is allowed after notice.

Further yet, thirty days is the set time after passage of the ordinance, *i. e.*, May 13th, when every insanitary privy must be corrected. There must be no surface privies in the city of Pensacola after June 12, 1919.

I have attempted to give a bare outline with mere glimpses here and there so that you may realize the vicissitudes of the public health officer.

In the meantime, while public opinion was being molded around this central endeavor, other phases of organizing for health were being developed.

The most noticeable improvement is in the restaurants, soda fountains, markets and other places where food is handled. General screening according to state law was enforced by means of an inspector of the Public Health Service and one of the city, working jointly. All other details for improvement were worked out by means of close scoring, which was heartily endorsed as a fair procedure. The individual and general improvements are remarkable. It is all markedly observable and the town is proud of it. The milk problem is a long way from a good solution, but it is believed that consistent work will effect wonderful and permanent improvements.

At our suggestion the State Sanitary Engineer sent his assistant who made a very comprehensive survey and report of the drainage conditions in the city. This problem does not loom large because most of the work required would be in the nature of opening up natural courses and cleaning out ditches formerly made.

From the angle of mosquito nuisance and also the reduction of possibilities of malaria conveyance by this pest, a judicious expenditure of money would pay good dividends.

School inspection of course needed attention. Dr. Tatum, District State Health Officer, was conducting the work in the rural areas. There are something like 3,000 children in the city schools. Dr. Grace Whitford of the Child Welfare Bureau of the State Board of Health detailed her assistant, Dr. Josie Rogers, for duty during the month of May. Having examined 1,200 children before her arrival and assisting considerably up through last week, it can be announced that even the 350 high-school students have been physically inspected and all defects which were found have been recorded. The Red Cross, by its Home Service Department, is supplying lay workers for follow-up work, and it is anticipated that part of the new health organization will have a nursing corps of one or more members. Eye defects have been too frequent. Some rural schools have shown from eight to ten per cent of trachoma. The city schools will go four or five per cent. Where hookworm examinations were made a high prevalence was found, though the grade of children seemed to be fair. Already parents are waking up to the serious aspect of defects in their children. Once the work with a system is well under way, the good accomplished will be incalculable.

I have not mentioned morbidity reporting. This deals with the doctors and until we could show them that we had built up an organization to make practical use of their reports we rather hesitated in forcing a rather difficult issue with them. It seems strange that there are doctors opposed to carrying out this important legal provision for the good of the community. Taken all together the ideas mentioned and others have grown toward the one big central idea of a full functioning city and county health organization under a full-time health officer, supported by the state, county and city. It is believed that enlightened public opinion has come finally to see how this can be effected for the great benefit of all concerned. If nothing more is accomplished, thinking people will be better able to understand more fully what is meant when they are told that "health is a purchasable commodity."

PROPAGANDA FOR REFORM.

COLLOSOL PREPARATIONS. — The Council on Pharmacy and Chemistry reports that Collosol Argentum, Collosol Arsenicum, Collosol Cocain, Collosol Cuprum, Collosol Ferrum, Collosol Hydrargyrum, Collosol Iodin, Collosol Manganese, Collosol Quinin and Collosol Sulphur are inadmissible to New and Nonofficial Remedies because their composition is uncertain. In the few cases in which the therapeutic claims for these preparations were examined, the claims were found so improbable and exaggerated as to have necessitated the rejection of these products on this account. The term "Collosol" appears to be a group designation for what are claimed to be permanent colloidal solutions, marketed by the Anglo-French Drug Company, Ltd., London and New York. Were this claim correct, the Collosols should contain their active constituent in the form of microscopic or ultramicroscopic suspensions. The Council was, however, obliged to question the colloidal character of the preparations. A number of samples submitted to the Council had separated and Collosol Hydrargyrum was not a colloidal solution at all; also the ampules of Collosol Ferrum contained a flocculent precipitate. If either of these two preparations were injected intravenously as directed, death might result. (*Jour. A. M. A.*, June 7, 1919, p. 1694.)

PULVOIDS CALCYLATES COMPOUND.—The Council on Pharmacy and Chemistry publishes a report on Pulvoids Calcylates Compound (The Drug Products Co., Inc.), not so much because the preparation is of any great importance, but as a protest against the large number of similar irrational complex mixtures which are still offered to physicians. These "Pulvoids" are tablets,

each of which is said to contain "Calcium and Strontium Disalicylate 5 grs., Resin Guaiac ½ gr., Digitalis ¼ gr., Colchium (colchicum) Seed ¼ gr., Squill ¼ gr., Cascarin 1-16 gr. with aromatics." They were advertised among "Approved Remedies for La Grippe and 'Flu.'" The Council admits that salicylates have a field in influenza in that they often afford relief from pain. There is no reason to suppose that a mixture of strontium and calcium salicylate—the calcium and strontium disalicylate of the "Pulvoids" is probably a mixture of strontium and calcium salicylates—has any greater salicylic effect than an equal amount of sodium salicylate. On the other hand it is worse than useless to give colchicum, squill and digitalis for the relief of such pain. No educated physician will give resin of guaiac and "cascarin" in fixed proportions with salicylates. (*Jour. A. M. A.*, June 14, 1919, p. 1784.)

ANTITHYROID PREPARATIONS (ANTITHYROIDIN-MOEBIUS AND THYREOIDECTIN) OMITTED FROM N. N. R.—New and Nonofficial Remedies, 1918, contained a discussion of "antithyroid" preparations and described two of these: Antithyroidin-Moebius (E. Merck, Darmstadt, Germany) and Thyreoidectin (Parke, Davis and Company, Detroit, Mich.). The "antithyroid" preparations have not realized the expectations of their promoters, and are viewed with skepticism by practically all critical clinicians. Consequently, notwithstanding the cautiously worded claims made for Thyreoidectin, the Council voted to omit this preparation from New and Nonofficial Remedies. (Antithyroidin-Moebius had already been omitted because it was off the market.) (Reports Council Pharm. and Chem., 1918, p. 50.)

BORCHERDT'S MALT EXTRACT WITH ALTERATIVES.—Each fluidounce of this was claimed to contain iodin 1-30 grain, calcium iodid 1 grain, potassium iodid 2 grains, calcium chlorid 8 grains. The preparation was declared inadmissible to New and Nonofficial Remedies: (1) because it did not contain free iodin as claimed; (2) because it was needlessly complex, and therefore irrational; (3) because the name of the preparation is not descriptive of its composition, but therapeutically suggestive. (Reports Council on Pharm. and Chem., 1918, p. 51.)

CEPHAELIN AND SYRUP CEPHAELIN-LILLY OMITTED FROM N. N. R. AND SYRUP EMETIC-LILLY NOT ACCEPTED.—New and Nonofficial Remedies, 1918, described cephaelin (an alkaloid obtained from ipecacuanha root) and listed Syrup Cephaelin-Lilly as a pharmaceutical preparation of it. In 1918 Lilly and Company advised that the name of its preparation had been changed to Syrup Emetic. The Council directed the omission of Syrup Cephaelin-Lilly and voted not to admit Syrup Emetic because the name does not indicate the potent ingredient of the simple pharmaceutical preparation and in that it is therapeutically suggestive. Emetics are powerful agents, and preparations containing them should not be sold under noninforming names. As the cephaelin syrup was the only preparation of cephaelin admitted to New and Nonofficial Remedies and as the alkaloid appears to have no important therapeutic field, the Council also emitted cephaelin from the book. (Reports Council Pharm. and Chem., 1918, p. 52.)

COLALIN OMITTED FROM N. N. R.—Colalin is a bile salt preparation claimed to consist essentially of hyoglycocholic and hyotaurocholic acids. It is manufactured by Rufus Crowell and Company, Somerville, Mass., and marketed by Schieffelin and Company. An examination of the current advertising for Colalin revealed that claims were made for it which were not in harmony with the known actions of bile preparations. As these claims were not substantiated by evidence nor revised in accordance with a request sent to the manufacturer and the agent, the Council directed the omission of Colalin from New and Nonofficial Remedies. (Reports Council on Pharm. and Chem., 1918, p. 52.)

DIPHTHERIA BACILLUS VACCINE OMITTED FROM N. N. R.—The Council directed the omission of diphtheria bacillus vaccine from New and Nonofficial Remedies because the

manufacturer of the only preparation of this vaccine advised that its sale had been discontinued. (Reports Council Pharm. and Chem., 1918, p. 54.)

Empyroform Omitted From N. N. R.—Empyroform is a condensation product of birch tar and formaldehyde. The Council voted to omit the preparation from New and Nonofficial Remedies because its usefulness is doubtful and because the agents were not in a position to submit further evidence for its value. (Reports Council Pharm. and Chem., 1918, p. 55.)

Foral.—Foral is a depilatory preparation sold with special claims for its use for the removal of hair prior to surgical operation or the dressing of wounds. The Council declared Foral inadmissible to New and Nonofficial Remedies: because it is an unessential and irrational modification of the well-known depilatory composed of barium sulphid 2 drachms, zinc oxid 3 drachms and starch 3 drachms, and because it is marketed under a noninforming name and with unwarranted claims. (Reports Council Pharm. and Chem., 1918, p. 55.)

Glycerosal.—This was said to be a mixture of glyceryl salicylates prepared by heating methyl salicylate with glycerol. The Council declared Glycerosal inadmissible to New and Nonofficial Remedies because unwarranted claims were made for it and because there was no evidence to indicate that it had any advantage over other salicyl preparations, such as methyl salicylate, spirosal, etc. (Reports Council Pharm. and Chem., 1918, p. 57.)

Chionacea.—According to the catalog of Nelson, Baker and Co., the composition of Chionacea is: Each fluidounce contains: Tinct. chionanthus 180 min., Tinct. echinacea 90 min., Euonymus 12 grs., Lappa 16 grs., Traxacum 16 grs., Syrup senna 120 min., Sol. sodium phosphate conc. 24 min. The merits of the preparation may be estimated by the following: According to the Epitome of the U. S. P. and N. F., chionanthus, or fringed tree bark, is an obsolete drug formerly used by eclectics and homeopaths in hepatic disorders and syphilis, but has no definite indications for its use. Echinacea was examined by the Council on Pharmacy and Chemistry in 1909. Of this drug, the Epitome states "The claims for this drug as an 'alterative' and antisyphilitic are extravagant and unwarranted. There are no established indications for its use." (*Jour. A. M. A.*, June 14, 1919, p. 1787.)

More Misbranded Nostrums.—The following have been found misbranded under the Federal Food and Drugs Act: Samaritan Nervine, containing nearly 19 per cent potassium bromid; Phenol Sodique, reported on by the Council on Pharmacy and Chemistry in 1907; Nuxcara, containing alcohol, cascara strychnin and berberin; Dr. Upham's Valuable Electuary, a tablet composed essentially of resins, sugar, sulphur, gum and vegetable extractives. (*Jour. A. M. A.*, June 21, 1919, p. 1858.)

Tyree's Antiseptic Powder.—An advertising leaflet for Tyree's Antiseptic Powder recently received by a physician is devoted largely to a report of a bacteriologic examination of the Tyree's preparation. The physicians who receive this advertising material might easily overlook the fact that the reported bacteriologic tests were made in 1889 and that the investigation of the Council on Pharmacy and Chemistry in 1906 brought out that the examination applied to a product differing radically in composition from that of the preparation now marketed. The Council found that although the Tyree preparation was advertised as a mixture of borax and alum, it was essentially a mixture of zinc sulphate and boric acid. Here then we have a manufacturer publishing in 1919, in behalf of a certain product, tests that were made in 1889 with a product of different composition although of the same name. (*Jour. A. M. A.*, May 17, 1919, p. 1482.)

Peptenzyme.—Peptenzyme was reported on by the Council on Pharmacy and Chemistry along with a number of other products of Reed and Carnrick in 1907. The report "Reed and Carnrick's Methods" announced that none of the products examined were

eligible for New and Nonofficial Remedies. The following is an abstract of the report on Peptenzyme elixir and powder are said to contain "the enzymes and ferments of all the glands which bear any relation to digestion"; therefore, the peptic glands, pancreas, salivary glands, spleen and intestinal glands. The preparations are said to be "not chemical extracts, but pure physiologic products." Apparently Peptenzyme powder consists of the glands, dried and powdered, while the elixir is an extract. It is stated that these preparations digest proteids, starch and fat, and in addition stimulate and nourish the digestive glands, and that the ferments in these preparations do not interfere with or digest one another. Examination by the Council showed that these preparations were practically devoid of any power to digest proteids or fat when tested by the U. S. P. method. The claim that the product contained ferments which would not show this activity in the test tube, but become active in the alimentary canal, is contrary to known facts and should not be substantiated by the manufacturer. The claims made for Peptenzyme powder and elixir were held to be unwarranted. (*Jour. A. M. A.*, May 17, 1919, p. 1484.)

KLINE'S NERVE REMEDY. — This epilepsy nostrum was analyzed by the A. M. A. Chemical Laboratory and found to be a bromid preparation and practically identical with Waterman's Tonic restorative.

CHASE'S RHEUMATIC SPECIFIC.—The A. M. A. Chemical Laboratory found this to have essentially the following composition: Sodium salicylate 22.4 per cent, magnesium oxid 5.3 per cent, licorice root 72.3 per cent.

DIABETOL.—In 1910 Professor Millspaugh at the Field Museum, Chicago, found this herb to be from a shrub—*Stenolobium stans* (L.)—growing in Arizona, Mexico and Central America.

VARNESIS. — Some time ago, the State chemists of Connecticut found this to contain 18 per cent alcohol and less than 1 per cent vegetable extractives derived from laxative drugs and capsicum. Later the alcohol percentage was reduced to 15.

VIAVI.—Viavi Capsules were analyzed for the *California State Medical Journal* and reported to contain nothing but extract of hydrastis and cocoa butter.

NUXATED IRON.—The analysis in the A. M. A. Chemical Laboratory indicated that Nuxated Iron Tablets contained only 1-25 grain of iron, while the amount of nux vomica was practically negligible. Nuxated Iron has been advertised by an extensive campaign of misrepresentation and exaggeration. (*Jour. A. M. A.*, May 24, 1919, p. 1560.)

SANOSIN. — Sanosin (first introduced as Sartolin) consists of a mixture of powdered eucalyptus leaves, flowers of sulphur, powdered wood charcoal, and oil of eucalyptus. The instructions to the consumptive are that this mixture should be placed on a slab under which an alcohol lamp is burning. The whole thing is to be operated in a room which is tightly closed and in which the consumptive is supposed to stay. (*Jour. A. M. A.*, May 24, 1919, p. 1561.)

TOWN'S EPILEPSY TREATMENT.—This is a bromide epilepsy preparation and was analyzed by the A. M. A. Chemical Laboratory. (*Jour. A. M. A.*, May 24, 1919, p. 1561.)

THE WILLIAMS TREATMENT.—According to the Dr. D. A. Williams Company, which sells it on the mail order plan, the Williams Treatment "conquers kidney and bladder diseases, rheumatism and all other ailments when due to excessive uric acid." The Williams Treatment was analyzed in the A. M. A. Chemical Laboratory and from the results of the examination it was concluded that it is essentially a mixture containing in 100 cc. 48 gm. potassium acetate in solution and about 7 gm. potassium bicarbonate, the latter being largely undissolved. The mixture is colored with caramel and flavored with oil of wintergreen or methyl salicylate. (*Jour. A. M. A.*, May 31, 1919, p. 1632.)

INVESTIGATION BASED ON FALSE PREMISES. —One sometimes reads in supposedly "Original Articles" in medical journals statements that seem puzzlingly familiar. If one

is sufficiently inquisitive and possessed of a germ of Sherlock Holmesism, the familiar statement may be traced to the "literature" for some proprietary medicine with which the author's article deals. The unwisdom of authors accepting the unconfirmed statements of the promoters of proprietary remedies is well illustrated in a recent report of the Council on Pharmacy and Chemistry on "Collosol Cocaine," a preparation claimed to contain 1 per cent of cocain in colloidal and relatively nontoxic form. The report brings out that men of good standing had reported "Collosol Cocaine" to be much less toxic than cocain. These men, however, did not verify the statement of its composition, and subsequent investigation by others brought out the fact that "Collosol Cocaine 1 per cent" contained but 0.26 per cent cocain, and that its toxicity was in accord with the amount of cocain found. Those who investigate the action of drugs must recognize more fully than has often been done in the past, that a study of a medicament is of no scientific value whenever the identity of the substance is not established. (*Jour. Ind. State Med. Assn.*, May, 1919, p. 134.)

THERAPEUTIC EVIDENCE.—Has the medical profession learned to distinguish between real therapeutic evidence and chance observation? If so, the profession will not be impressed by certain testimonials for a widely advertised ointment. The wise physician who reads the testimonials will ask: Was it the "baking" or the proprietary ointment which produced the "remarkable results" in "rheumatic affections and ankylosis"? Was the "contracted arm chronic" benefited by time and friction or by the proprietary? How did the physician know that "anointing the nostrils" prevents attacks of influenza? Those who are inclined to give credit to drugs for naturally occurring events may be interested in the statement of a prominent chemist that he has been free from his periodical colds since he arranged for an inoculation with a "cold" vaccine, but was prevented from keeping the appointment. (*Penn. Med. Jour.*, May, 1919, p. 524.)

PHARMACEUTICAL MANUFACTURERS AND "PRIVATE FORMULA" PRODUCTS.—Sharp and Dome explain that it is their inflexible rule that all "private formula" orders intended for public distribution are refused until the copy for the "literature" has been studied by their experts. They explain that an order for three preparations which were later the subject of prosecution for misbranding under the Federal Food and Drugs Act were filled and shipped in the belief that the copy had been passed on by their Spanish expert, when in reality this had not been done. The house of Sharp and Dohme feels that it has been done an injustice in the publication of the "misbranded nostrum" notices which gave no hint that the preparations were private formula products, and were not sold under the name of Sharp and Dohme. The firm believes that an injustice was done in that the reference to these misbranded nostrums will lead readers to believe that they were sold under the label of Sharp and Dohme. There is unfortunately a commercial distinction between products which are made by a firm and products which are sold by it. Whether or not there is any moral difference between profiting by the manufacture of a "patent medicine," that is to be retailed by some one else, and selling the same medicine under one's own name, is a question (*Jour. A. M. A.*, March 1, 1919, p. 669).

ANTHELMINTICS.—The earthworm reacts with symptoms of toxicity to all clinical anthelmintics just as do the parasitic intestinal worms. This fact has enabled Torald Sollmann to reinvestigate the claims long made for certain drugs. Spigelia was found to have rather feeble toxicity, but fresh pumpkin seed and squash seed were quite highly efficient (*Jour. A. M. A.*, April 26, 1919, p. 1228).

VERACOLATE TABLETS. — The Council on Pharmacy and Chemistry examined Veracolate (Marcy Co.) in 1915 and found it to be semisecret in composition, unscientific in combination and exploited under unwarranted claims (*Jour. A. M. A.*, April 26, 1919, p. 1245).

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EIGHTH DISTRICT—Alachua, Baker, Bradford, Levy and Putnam Counties: A. H. Freeman, M. D., Starke 1920
NINTH DISTRICT—Calhoun, Holmes, Jackson and Washington Counties: C. H. Ryalls, M. D., Dellwood 1921
TENTH DISTRICT—DeSoto, Lee, Manatee and Polk Counties: R. L. Cline, M. D., Arcadia 1920
ELEVENTH DISTRICT—Dade, Monroe and Palm Beach Counties: W. R. Warren, M. D., Key West 1921

COMMITTEE ON SCIENTIFIC WORK.

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E. W. WARREN, M. D. . . . . *Palatka*

Next Place of Meeting — DAYTONA — May, 1920

THE NEW STATE HEALTH OFFICER.

The appointment of Doctor Ralph N. Greene, as State Health Officer, was announced in the lay press the early part of the month. Doctor Greene at the time of his appointment was still in the service with station at the U. S. Army General Hospital, Fort Sam Houston, Texas. Doctor Greene shortly after secured his release from military service and assumed the duties of his office on the 16th inst. THE JOURNAL believes the selection of Doctor Greene for this important office to be a most happy one, and that Public Health matters in Florida will receive a decided impetus as a result of his selection. He has already announced that efficiency is to be the watchword of his administration and that only those attaches who prove to be incompetent will be supplanted. This is as it should be, for politics has no place in Public Health Work as there are but too few properly trained to carry out the many details of Public Health Service. To remove attaches of a State Board simply to make room for political appointments can not be other than detrimental to the usefulness of a Health Board, be it city or state. In this connection it is pleasing to note the spirit of the new President of the State Board of Health, Mr. J. L. Earman, of West Palm Beach, who stated in a Jacksonville paper: "The administration of the State Board of Health is definitely out of politics, from now on efficiency will be the determining factor. If an employee is efficient he will retain his position, and if not we will fill it with someone who is. Furthermore, Major Greene will be in direct charge of the health work in the state. I admit I do not know anything about the health work yet, and we intend to give Major Greene a free hand in administering activities of the board.

"During my service as President of the State Plant Board I gave three hours a day solely to that work, and I intend to do the same thing with the Board of Health work. I consider the institution one of the most im-

portant in the state; it is bigger than any one man could be because its service is directly interwoven with the development of the state, and each and every person in Florida benefits or loses by its success or failure."

Guard Officer into the service of the United States during the Mexican border trouble in 1916. A few months after his return from a tour of duty on the Mexican Border, he was again mustered into the Federal Service up-

DOCTOR RALPH N. GREENE, STATE HEALTH OFFICER

Doctor Greene needs no introduction to the members of the Florida medical profession or to the readers of THE JOURNAL. He made an enviable record as Chief Physician of the Florida Hospital for the Insane. Later he was successfully engaged in private work in Jacksonville which, however, was rudely interrupted by his entrance as a National

on our entry into the European War. He has been continually in the service of the United States Army from that time until his recent discharge.

THE JOURNAL predicts a most successful administration of Public Health matters in the state under the direction of Doctor Greene.

G. E. H.

SIR WILLIAM OSLER AT SEVENTY —A RETROSPECT.

No physician occupies a higher place in the esteem and affection of the English-speaking medical profession than Sir William Osler. For many years his name and his words, written or spoken, have carried an appeal to the mind and heart of physicians as no one else's, and they do so still today. To explain fully this matchless power, this intellectual and moral force, is a far greater task than we would pretend to attempt at this time; but in the interest especially of the rising generations of physicians, the present occasion seems a suitable one on which to point out some of the chief landmarks along the road traveled by the beloved and honored septuagenarian on the way to his high place.

The friends of student days in Toronto and at McGill University in Montreal have recorded that he followed no traditional course, but worked much in the hospital and especially the postmortem room, and that unlike most of his fellow students he troubled himself apparently but little about examinations and mere book knowledge. His graduation thesis on topics in pathologic anatomy was awarded a special prize "because it was greatly distinguished for originality and research." After two years of study abroad, he began to teach pathology in Montreal. He was then 25 years old. Before long he was teaching medicine in the wards also, and he seems quickly to have given himself so completely over to teaching, anatomic and clinical observations, and literary and medical society work as to leave little time for private practice and the cultivation of opportunities to earn money, caring apparently but little about the morrow. Many papers were published these years: those on prodromal rashes in smallpox, on blood platelets, and on infectious endocarditis may be mentioned as examples of the more important. From the first he made a hit as a successful teacher who aroused enthusiasm and stimulated independent work. One more significant fact in regard to the Montreal phase of Osler's career should not be overlooked, namely, the deep and actively helpful interest in the student himself which has characterized his relations to students and young physicians throughout the succeeding years.

It is remarkable how early he attained certain fixed and dominant characteristics that have contributed alike to his usefulness and distinction. Any adequate account of just how various early influences worked together to give such a distinctive and definite bent to Osler's career from its very inception has not been made. It will be an interesting story. Palmer Howard and James Bovell, Canadian physicians of rare quality, are said to have influenced his medical work and outlook more than others. In 1884, Osler went to Philadelphia as professor of clinical medicine in the University of Pennsylvania Department of Medicine. His new colleagues were not a little astonished at first because he steadily turned aside all temptations to private practice in the usual sense but remained strictly teacher and consultant, thus securing the desired leisure for study in hospital, laboratory and library. His demonstrations in the pathologic society drew to him the younger men of the profession especially, an example of sharing the stores of observation all too little followed by leading teachers of clinical medicine and surgery, with an occasional exception like Fenger in Chicago. Many notable articles were published, and while in Philadelphia another side of Osler not yet referred to revealed itself fully, namely, his keen interest in medical history and biography and his gift for letters. In "Who's Who," bibliography is given as his sole recreation.

From this period dates the beginning of a series of addresses and essays of high literary merit; now rich with results of diligent search in medical scriptures, always hopeful and cheery, inspired by loftly ideals and an instinctive spirit of kindliness, they belong, many of them, more to the permanent "literature of power" than to the short-lived "literature of knowledge," and every physician should have them in his library. He has

stimulated greatly the interest in our own medical history, and we owe to Osler vivid sketches of the lives and work of early leaders of the profession in this country—Nathan Smith, Bartlett, Jackson, Bigelow, Alonzo Clark, Gerhard and others—with whom it was his ambition to be ranked. "The chief desire of my life has been to become a clinician of the same stamp with these great men, whose names we all revere and who did so much good work for clinical medicine."

As no one before him in this country, Osler illustrated that years of hospital work and observation give better equipment for teaching clinical medicine than practice as ordinarily pursued; hence, when the Johns Hopkins Hospital was opened in 1889, he was the first choice for the head of the department of medicine. And now began the most productive and fruitful period in his professional life. His cherished ambition to build up a great clinic in this country was to be fulfilled. Under the liberal and enlightened policies of the new institution in Baltimore, he rapidly organized a model medical clinic, one of the best, and the first and long the only one of its kind in this country. Here medical students were taken into the wards as units in the working force of the hospital; young physicians were trained through graduated services for higher careers in clinical medicine, and knowledge advanced by systematic study and investigation. Beloved by colleagues, assistants, students, he inspired them, as a colleague has said, with extraordinary stimulus to high endeavors. The result was a great contribution, sorely needed at the time, to medical education and to clinical medicine, which makes one of the brightest pages in our annals.

The work done by Osler and his associates during this period is now woven into the fabric of modern American medicine. It was a wonderfully productive period. His influence as writer and speaker expanded; he preached a vigorous gospel of sanitation, particularly with reference to typhoid fever; he promoted the work of medical societies and libraries, and entered deeply into the life and interests of the profession generally. "With the general practitioner throughout the country my relations have been of a peculiarly intimate character," and few if any have enjoyed in such remarkable degree the warm personal friendship and admiration of physicians everywhere. He was the high priest of lofty ideals, harmony and friendly cooperation. Always the close, kind friend of his students and assistants, many a fumbling beginner has been gladdened unexpectedly by his generous encouragement.

In 1905, Osler accepted the Regius professorship of medicine in Oxford University. While we have not been able to follow his many activities so closely as when he was here, we have had continuous evidence that his work has gone on with undiminished vigor, and that his relations to the profession at large and his interest in its welfare have undergone no other change than in the place of immediate manifestation. Neither wealth nor fame has turned him away from the calm course he laid out for himself while still a very young man. His recent utterances, in a chapter on the treatment of disease, on the exploitation through impudent advertising of pseudoscientific preparations of questionable value by powerful manufacturing pharmacists have the familiar Oslerian ring and hit the bull's eye in the center. In place of a more or less noticeable tendency to therapeutic vagaries he would place "a stern, iconoclastic spirit which leads, not to nihilism, but to an active skepticism born of a knowledge that recognizes its limitations and knows full well that only in this attitude of mind can true progress be made."

And now we must take leave again of our friend and teacher. The American Medical Association sends him its heartiest congratulations on his seventieth birthday, and warm assurances of gratitude and affection. And to our young men, coming on the scene, we would recommend careful heed of these words from Osler's response at the farewell dinner tendered him at New York, May 2, 1904:

"I have had three personal ideals: One to do the day's work well and not to bother about tomorrow. You may say that is not a satisfactory ideal. It is; and there is not one which the student can carry with him into practice with greater effect. To it more than anything else, I owe whatever success I have had—to this power of settling down to the day's work and trying to do it well to the best of my ability, and letting the future take care of itself.

"The second ideal has been to act the Golden Rule, as far as in me lay, toward my professional brethren and toward the patients committed to my care.

"And the third has been to cultivate such a measure of equanimity as would enable me to bear success with humility, the affection of my friends without pride, and to be ready when the day of sorrow and grief came to meet it with the courage befitting a man."—*Jour. A. M. A.*

THE PRESIDENT-ELECT, SURGEON-GENERAL WILLIAM C. BRAISTED.

The election of Dr. William C. Braisted, Surgeon-General of the Medical Department of the Navy, as President of the American Medical Association was particularly appropriate to the Victory Meeting. Thus the Association not only honors the man it elects but is itself honored. Dr. Braisted's career represents a steady progress through many delicate tasks and difficult assignments. He was born in Toledo, Ohio, in 1864, and was graduated by the University of Michigan in 1883, and by the medical department of Columbia University in 1886. He served as intern in Bellevue Hospital, New York, for two and one-half years, entering civilian practice in Detroit in 1888 and continuing until 1890, when he entered the Navy as assistant surgeon. He was promoted in 1893 to passed assistant surgeon, then to surgeon, and in 1913 to medical inspector. In the routine of a naval career he has served on a number of vessels and at many naval hospitals, and twice has been instructor in surgery in the naval medical school. In 1904 he fitted out and equipped the hospital ship Relief. During the Russo-Japanese War he went to Japan as the representative of the Medical Department of the United States Navy; and his report on this assignment was considered by the Japanese officials to be the most accurate and complete published. Surgeon-General Rixey appointed him assistant chief of the Bureau of Medicine and Surgery; he continued in this service for six years, from 1906 to 1912, serving also under Surgeon-General Stokes. During 1906 and 1907 he was attending physician at the White House. He acted as fleet surgeon of the Atlantic Fleet from 1912 to 1914, when he became Surgeon-General of the Navy with the rank of rear admiral. He has been decorated twice by foreign governments—first by the emperor of Japan and later by the president of Venezuela. Admiral Braisted is especially noted for the interest he has taken in preventive medicine. He has given particular attention to the control of venereal diseases. Under his administration the Department of Medicine of the Navy has made a most enviable record, as indicated by the remarkably low mortality and morbidity records of the men in the naval service. The election of Admiral Braisted at this time is especially fitting; it recognizes the service without whose aid the winning of the war would not have been possible.—*Jour. A. M. A.*

Cancer Department

"In the early treatment of cancer lies the hope of cure"
AMERICAN SOCIETY FOR THE CONTROL OF CANCER

"THE UNDYING FIRE."

In Mr. H. G. Wells' latest novel a modern Job scans with seeing eyes the war-torn world of the twentieth century, yet keeps his faith, though racked in soul and body by a frightful succession of calamities culminating in a diagnosis of cancer. As he awaits an operation (which later, as often in real experience, happily proves the diagnosis to have been mistaken) he gives expression to an inspired vision of a world free from preventable disease. Already, he reminds his companions, science has taught us how to annihilate many a scourge, yet not until the world builds a more effective social organization upon a basis of better education can the progress of scientific research adequately accomplish the "relief of man's estate."

Those who strive to utilize present knowledge in the struggle against cancer, tuberculosis and other great causes of human suffering and death will find matter for thought and fresh inspiration for the daily task in the words of Mr. Wells' hero, a schoolmaster endowed with extraordinary power and insight:

"The most perplexing thing about men at the present time is their lack of understanding of the vast possibilities for power and happiness that science is offering them. * * * They solve the problems of material science in vain until they have solved their social and political problems. When those are solved, the mechanical and technical difficulties are trivial. It is no occult secret; it is a plain and demonstrable thing today that the world could give ample food and ample leisure to every human being, if only by a world-wide teaching the spirit of unity could be made to prevail over the impulse to dissensions. And not only that, but it would then be possible to raise the common health and increase the common fund of happiness immeasurably. Look plainly at the world as it is. Most human beings when they are not dying untimely, are suffering more or less from avoidable disorders, they are ill or they are convalescent, or they are suffering from or crippled by some preventable taint in the blood, or they are stunted or weakened by a needlessly bad food supply, or spiritless and feeble through bad housing, bad clothing, dull occupations, or insecurity and anxiety. Few enjoy for very long stretches at a time that elementary happiness which is the natural accompaniment of sound health. * * * But all such things, great or petty, given a sufficient world unanimity, could be absolutely banished from human life. Given a sufficient unanimity and intelligent direction, men could hunt down all these infectious diseases, one by one, to the regions in which they are endemic, and from which they start out again and again to distress the world, and could stamp them out forever. It is not want of knowledge prevents this now but want of a properly designed education, which would give people throughout the world the understanding, the confidence, and the will needed for so collective an enterprise. * * *

"Here am I, after great suffering, waiting here for an uncertain operation that may kill me. It need not have been so. Here are we all, sitting hot and uncomfortable in this ill-ventilated, ill-furnished room, looking out upon a vile waste. It need not have been so. Such is the quality of our days. I sit here wrung by pain, in the ante-chamber of death, because mankind has suffered me to suffer. * * * All this could have been avoided. * * * Not for ever will such things endure, not for ever will the Mocker of Mankind prevail."

CORNERSTONES IN FOUNDATION OF HEALTH.

By Clara D. Noyes,

Acting Director, A. R. C., Department of Nursing.

Upon three factors lying within the province of every wife and mother—a knowledge of proper nutrition, an understanding of elementary hygiene and sanitation, and a familiarity with simple nursing procedure—rest the foundations of good health.

Physical strength, like good government, is made up largely of "little things that count." Not only does this include the now-familiar microbe, but the ounce of prevention which should accompany him wherever he goes. Modern medicine has since proven, however, that the strength to work is every man's rightful heritage, and that practical common sense and technical knowledge are as valuable in maintaining health and in combating sickness as in practicing law or canning fruit.

The nurse has for some years been the highly specialized expert in the care of the sick. She is the first person to whom everyone turns in time of emergency. A household completely disorganized by critical illness will throw the entire weight of their anxiety and fear upon the "trained nurse, who'll soon straighten things out." This confidence has been the result of years of training, the foundations of which were laid by Florence Nightingale in the crowded hospital barracks of the Crimea, and whose development has come through the vision and hard work of many pioneer nurses, both in England and the United States.

The very nature of these standards of service, which have raised nursing to the same professional level as that of medicine and the clergy, has also tended to separate the graduate nurse further and further from the laywoman. This highly specialized training, her greatest asset, may also become her greatest enemy. "Nursing is an art," Florence Nightingale declared, "and requires as hard a preparation as any painter's or sculptor's work; for what is having to do with dead canvas or cold marble as compared with having to do with the living body?"

The so-called laywoman values the good nurse because of steadiness, her self-reliance, her ability to shoulder responsibility in time of crisis, her sense of proportion, and her indomitable courage. These attributes, however, are not heaven-sent; they come only through years of study, through rigid discipline, through many a "trial and error," and through a high code of ethics. Does the average wife and mother who feels that she owes the life of her child in large part to these qualities of mind and heart realize that she herself might possess them, not to so highly specialized a degree, but in proportion to her own willingness to study and learn the simple technique and the elementary principles underlying modern nursing?

Good health consists in keeping well as long as possible, and in combating sickness with the greatest degree of efficiency when it does come, so that health may return. Exactly what are the means by which a household keeps well?

By proper nutrition. Few of us realize the tremendous importance of correct food. Dietetics is a vast field and a complete science in itself; yet it is also the most ordinary problem of everyday life. No one ever gets away from the direct or unexpressed question of "What are we going to have for dinner?"

Experts in child welfare now contend that malnutrition is one of the greatest factors responsible for our infant mortality rate of 300,000 babies a year. Tuberculosis, which causes the death of 150,000 men and women in the prime of life, gains its first foothold in the bodies of the poorly nourished. The anemic young girl of the past generation becomes the mother of the children who should comprise the future strength of the nation. Because she herself may have been improperly nourished, she is not as physically fit for the ordeal of childbirth as she might be; she may join that pitiful army of 15,000 women who die each year of this one cause; or she

may drag herself wearily through days of invalidism. Her home becomes a burden too heavy for her limited strength. She is unable to give her baby the natural nourishment it requires, while she lacks the strength and often the interest to prepare properly artificial food for her child. It in turn is handicapped, and the entire vicious cycle begins again.

Just as factory experts study the best fuel for their engines, food experts have perfected the proper balance of nourishment for the human machine. Sometimes natural instinct helps to regulate this. Few women know the exact caloric value of potatoes, rice, and beef at the same meal, but their taste prompts them to make a more balanced selection. This should be governed by far more definite factors, however. Here is common ground where the nursing profession may meet with the average housewife in her home. The problem which presents itself is how can the scientific knowledge of the trained hospital dietitian be simplified and popularized to meet the needs of the average housewife.

Another method of keeping the household well is through elementary knowledge of hygiene and sanitation. The first move of health officers in fighting typhus or yellow fever is to clean things up." This means more, however, than merely scouring the surface; it means investigating the source of disease. A housewife may take infinite pains with her kitchen, her fly-screens, and her immaculate pantries and ice-box, yet if her water supply comes from a dug well situated below a stable, her family are veritably *drinking dirt.*

One of the common carriers of disease is the human hand. In a household where tuberculosis exists, the patient may remain absolutely isolated from the family, but the person nursing him may carry the infection directly from the invalid to the other members of the household via her own hands, or a common drinking-glass, or a handkerchief washed in the family laundry. All these methods of prevention of disease, and of household hygiene, lie again in the domain of the graduate and public health nurse. These principles have been repeated and emphasized so often that they have become almost second nature to her, but they are an undiscovered field of knowledge for the average laywoman. Here is a second opportuntiy where they might well "get together."

Familiarity with elementary nursing procedure is the third cornerstone of health. Leaders of the medical profession openly declare their dependence upon nursing. One eminent physician has declared that "the greatest advance in the practice of medicine in the past century has been the development of the art of nursing." Individual experience confirms this. A soothing bath, an alcohol rub, a shaded light, and a bowl of broth daintily served on a clean tray, perhaps with a flower laid across the fresh napkin, may do more to change the attitude of mind of a patient than all the reassuring words in a doctor's vocabulary. This interdependence of the mind and body is one of the greatest discoveries of modern psychology. Correct the former, and the readjustment of the latter becomes to a greater or less degree automatic.

The problem which arises is one of cooperation. Can the graduate nurse, on the one hand, simplify her highly specialized knowledge until it becomes of the greatest practical value to the average woman? On the other hand, will the average woman go out to meet the nurse half-way—in short, will she make the individual effort to learn these rudiments of nursing? When this cooperation can be universally effected, nationwide epidemics and disease will lose, in great part, both their danger and terror.

Red Cross chapters offer instruction in these cornerstones of health, in Home Dietetics, which teaches proper nutrition for the well and the sick, and in Home Hygiene and Care of the Sick, which is made up of theoretical and practical instruction in elementary nursing procedure. These courses are given by Red Cross nurses and dietitians, and may be secured at nominal cost to the pupil.

While these Red Cross courses may not establish the golden means of service between the graduate nurse and the average wife and mother, their value was demonstrated repeatedly during the influenza epidemic, and by the testimony of the 22,000 women who have completed the course. At any rate, they go very far to alleviate the heartache which comes of being absolutely helpless in time of sickness, as was one woman, who, having lost two children, brought her third sickly baby to a Red Cross nurse and said:

"My baby's getting sick again, just like my others. I don't know what's the matter, and I don't know whom to go to. Can't you teach me how to take care of her?"—*The Red Cross Bulletin.*

JUSTICE FOR THE CRIPPLED.

The art of being happy and useful, though crippled, is the normal, natural heritage which should be the cripple's right—not the attitude of hopelessness and dependence which the cripple too often acquires as a result of the thoughtless attitude of society in looking upon every cripple in much the same way as persons look upon a healthy but useless beggar, according to Helen I. Hoppin, of the Milwaukee-Downer College, of Milwaukee, Wis.

The war has given the cripple and his able-bodied associates a new understanding, she declares, writing in the June issue of *The Modern Hospital*, Chicago, Ill. The spectacle of the cripple working in industry side by side with men better equipped physically has created a sympathy between individuals which must be converted to a broad sympathy between cripples as a class, and those who are sound.

Rehabilitation for cripples in civilian life, she declares, is just as necessary and valuable as rehabilitation for disabled soldiers. Instead of the cripple becoming a poor man or a public charge, he becomes a self-supporting, independent citizen, a producer, and a contributor to the good of society.

New enthusiasm lights the minds of crippled men and women who before the war felt keenly the unsympathetic attitude of the public at large. Denied then the right to work and live as the equal of men and women not so unfortunate, they now see opportunities to gain a foothold in business and industry.

Democracy wins new force when its crippled members live and thrive upon the same footing with those not disabled. The burden which social and charitable agencies have been obliged to carry because society has heretofore discouraged the cripple, disappears and the benefit of the cripple's work and activity increases the wealth of communities.

"On the reconciliation of the cripple to his new relations with the industrial world," says *The Modern Hospital*, Chicago, Ill., "depend all his future successes—success in physical reconstruction, in training for workmanship, in vocational placement, and in his final settlement in society. The mental attitude is more than a sentimental matter. It has a physical and an economic effect, and demands attention from the medical and the vocational standpoint. It is the most vital demand in the program for the rehabilitation of cripples that the war-born unity between the classes be cherished and made to include a new good will between the crippled and the sound."—*The Modern Hospital.*

CAMP SERVICE MOVES WITH UNFLAGGING ZEST.

Since the first call to arms, the chief aim of the work of the American Red Cross has been the comfort and welfare of the American soldier (soldier being a general term used to designate all fighting men, no matter what arm of the service they may be in), and so it will continue until the last man steps off the gangplank of the last transport, or leaves the yawning doorway of the last hospital and writes "finis" to the war chapter of his life.

Directly or indirectly, every phase of Red Cross work has tended toward this end. The

Red Cross has grown with the needs of the soldiers, and the needs of the soldiers of this war were greater than the needs of any soldiers in any preceding war, for many obvious reasons. Under the Department of Military Relief, the Red Cross mapped out an elaborate program for the care of the soldiers "all the way and back again." With the free scope given it by the War Department, the Red Cross has been able to provide for the soldier's welfare wherever he has been and under all circumstances, out of the line or in, sick, well or convalescent, maimed or "whole."

Having taken them comfortably "all the way," the Red Cross is now bringing them back again. The Red Cross is the last to wish them *"bon voyage"* in a farewell sandwich and a "smoke" as the great ships turn their noses homeward, and the first to greet them on the piers of the debarkation ports of the United States.

Care of the returning soldier falls into three branches: (1) Miscellaneous Service for the Comfort and Welfare of Soldiers, (2) Home Service in the Camp, and (3) Recreation. It is difficult to say which of these is the most important, so greatly does each depend on the other, and each branch of service embraces any number of auxiliary services growing out of the main branch, weaving an all-covering net of comfort and relief that spreads like a protecting mantle over each and every soldier of the A. E. F.

When the soldier finds himself once more at Brest, facing the West and home, his mind is a theatre of conflicting emotions, mostly joyful, to be sure, but tempered a little with foreboding. There is the wife at home, and the children. There is this stump of an arm which wasn't very jolly. There is the will-o'-the-wisp of a job to be sought. The soldier is not discouraged, but he can't help thinking about these things, as he lies there in the base hospital, with his stump of an arm or his twisted knee, and waits for the transport that will take him home.

When the day comes at last, he is carried aboard on a stretcher. Beside him are a pair of new pajamas, a Red Cross comfort kit and plenty of "smokes." Aboard there is a Red Cross man with his hands always filled with "extras" that have come to mean essentials —clean underwear and socks, shaving equipment, soap and wash cloths, candy and fruit, and "smokes" before and after everything else. On the way to the debarkation hospital, there is the same old Red Cross smile and the succession of sandwiches, pie and coffee. At night, while the train speeds towards the army hospital near his own town, there are the canteen women at the stopping places late in the night, with lemonade, sandwiches and cigarettes. In April, 1919, 2,337,192 soldiers received the attention of the "Comfort Service."

When the soldier reaches the convalescent stage, there is the Red Cross house with its home-like features, easy chairs, rugs, music, games, books, newspapers and magazines—the fireplace, the sun parlor or the porch, according to the season. On fine days there is the Motor Corps that takes the soldiers for delightful country spins with picnic lunches under the open sky. It is by these many small attentions, that mean so much, that the Red Cross endeavors to make "getting well" easy, and helps to rob convalescent days of their boredom. A sick or wounded soldier does not get well soon if his mind is not happily attuned and his personal troubles at rest.

Sick, convalescent or well, a soldier may have recourse to Home Service, a phase of Red Cross work that has grown to prime importance in the support of the fighting man's morale. With the return of the soldiers, the need of Home Service does not grow less, nor does the volume of work decrease with the decrease of men in the camps. More effective methods of trouble location, and a careful adaptation of Red Cross machinery to the discharge "mills" in the United States, reveal more and more men needing the aid of Home Service. During the month of May last, the 228 associate and assistant field directors in charge of Home Service handled 32,639 cases for soldiers and sailors. This is an average month's work.

Anxiety over home affairs—uncertainty over the safety and welfare of loved ones—have done more to weaken the morale of the men than the most grievous wounds received in battle, or even the endurance of short rations, or trying days and nights under fire. Red Cross Home Service has endeavored to bridge the gap between the soldier and his home, and to act as the intervening agent to whom all petitions may be trusted and all cares consigned. Five hundred Red Cross Home Service representatives are working in the camps of this country and in the army hospitals, with their 50,000 patients.

In demobilization camps especially, an intensive program presents itself. In the rush and confusion of the discharge "mill," many opportunities exist for personal advice and assistance to the soldier. A little practical service at this point may be the means of sending a man out of the service in a contented and cheerful frame of mind, when otherwise he might be bitter in his criticisms of things in general. It is only natural that it would be so. Among the latest innovations are the banking agencies, established in twenty-two demobilization camps, under the authority of some nearby clearing house or bank, enabling a discharged soldier to deposit part of his discharge money for transmission to any bank he may designate, in exchange for a non-negotiable receipt. At Camp Taylor alone, $152,215 was deposited in this way within the space of eleven days.

Illustrative of the serious troubles that are brought to the attention of Home Service in the camps, is a case of a soldier's wife and family being ejected for non-payment of rent. The local Home Service section was notified and the chapter invoked the aid of the Civil Rights Law until the delayed allotment and allowance were followed up. When the government money came, the wife paid the rent in full.

A sailor's child stricken with tuberculosis was assured proper medical attention through Home Service. A soldier in a base hospital was anxious about his sick wife and his six children. A Red Cross man went to the isolated home to investigate the case. The sick mother was sent to a hospital in the country, while the children were provided for until the mother was well enough to return. The delayed government allotment was also secured in this case, which enabled the family to face the winter with a bank balance, income and friends. In innumerable ways, men in the service are being helped to overcome the black burdens of debt and sickness at home. The preservation of the normal life of the home is the ideal towards which all Red Cross agencies touching family life strive. Thus the soldier in camp, sick or well, is relieved of all personal anxiety; the former is relieved of all mental hindrances to his recovery; the latter has but to serve his best and to wait with what patience he can muster, a virtue that is more easily acquired when Home Service lifts all worry from one's shoulders.

It is perhaps unnecessary to explain the necessity of recreation and diversion in convalescent camp life. All normal human beings demand it and the soldier is a very normal, very human being. Furthermore the health of his body depends upon the tranquillity of his mind. His mind must be carefree and it must be occupied, usefully, or in the pursuit of play. In developing the recreation program, the slogan has been: "Out of the grandstand into the game," with the idea of enlisting the interest and participation of all patients in the camps or hospitals.

Of course, such passive entertainment as theatrical shows, moving pictures, concerts, boxing bouts, phonographs, player pianos, baseball games, motoring, is necessary, although it is more diverting than stimulating, and participation is limited to a few, or at least to a few at a time. Actual participation is necessary if the patient is to encourage his own initiative and to develop the spirit of cooperation and interest. At Fort McHenry and Walter Reed General Hospital, Washington, the one-armed baseball teams defeated their two-armed opponents, who played with one arm tied behind their backs. At U. S. General Hospital No. 3, Colonia,

N. J., there was a one-legged football game on Memorial Day, in which the contestants, thirteen to a side, endeavored to kick the ball over a high net, thus scoring a point. Various games and contests have been devised to meet the limited physical possibilities of the disabled patients and to enable them, in so far as possible, to overcome and ignore their handicaps in the zest of the game.

Such play does wonders to restore self-confidence and banish self-consciousness. At Camp Custer they have wheel-chair drills; at Fort Sheridan, decorated wheel-chair parades and wheel-chair 50-yard dashes, and wheel-chair potato races. In fact, every game that was ever devised in any gymnasium, or on any playground or athletic field, can be found on the hospital recreation program, in its original form or modified to meet requirements—baseball, basketball, volley, dodge, push, and medicine ball, tennis, boxing, wrestling, croquet, rope-whipping, knot tying, signaling, military calesthenics, quoits, horseshoes, etc., etc. The gymnasium at Fort Snelling averages an attendance of over 500 men a day.

Athletics, while perhaps the most spectacular of camp sports, is only one phase of the active recreation program. Community singing is part of the life of every hospital. Singing has been found especially helpful among the "psychopathic" patients, whose minds have been affected by the war, or by wounds received in battle. Musical instruments have been provided by the Red Cross, and bands and orchestras have been formed in many hospitals. Piano players and victrolas have been placed in every Red Cross convalescent house. Theatrical entertainments have been encouraged and many of these amateur offerings have met with unusual success. The "Camp Lewis Players" are now "on the road" professionally. Fort Riley produced a successful circus. Mock trials by court-martial have proved highly amusing wherever they have been tried. Moving pictures have lost none of their popularity. It was the Red Cross that first experimented with "movies on the ceiling" for the benefit of bed patients.

In conjunction with the Red Cross, the American Library Association has contributed its part to the recreational program in organizing libraries in all the camps, open to the entire personnel of the post. The dances for the maimed, as well as the "whole," that take place at the Red Cross houses, are always successful and form one of the most enjoyable events of each week.

The breadth and scope of the Red Cross program planned for the benefit of the returning soldier, is readily appreciated. He can not feel neglected or forlorn as long as the Red Cross is with him, and surely no possible comfort, no possible need has been overlooked. The three great arms work together amicably, smoothly, jointly, each performing the tasks that fall within its immediate field, yet extending its activity to dovetail happily with the other branches. In the field, in the camp, in the home, the Red Cross is omnipresent wherever the soldier goes or wherever his interests lie. It knows no armistice, in its fight against sickness, worry, despair or trouble, as they affect the American soldier.—*The Red Cross Bulletin.*

PRINCIPAL CAUSES OF DEATH.

Census Bureau's Summary of Mortality Statistics for 1917.

The Census Bureau's annual compilation of mortality statistics for the death-registration area in continental United States shows 1,068,932 deaths as having occurred in the area in 1917, representing a rate of 14.2 per 1,000 of population. Of these deaths, nearly one-third were due to three causes — heart diseases, pneumonia, and tuberculosis—and nearly another third resulted from the following nine causes: Bright's disease and nephritis, apoplexy, cancer, diarrhea and enteritis, arterial diseases, influenza, diabetes, diphtheria, and bronchitis. The death-registration area of the United States in 1917 comprised 27 states, the District of Columbia,

and 43 cities in nonregistration states, with a total estimated population of 75,000,000, or about 73 per cent of the estimated population of the United States. (The territory of Hawaii has recently been added to the registration area, but the figures given in this summary relate only to continental United States.)

The deaths from heart disease (organic diseases of the heart and endocarditis) numbered 115,337, or 153.2 per 100,000 population. The death rate from this cause shows a noticeable decrease as compared with 1916, when it was 159.4 per 100,000. There have been fluctuations from year to year, but in general there has been a marked increase since 1900, the earliest year for which the annual mortality statistics were published, when the rate for heart diseases was only 123.1 per 100,000.

Pneumonia (including bronchopneumonia) was responsible for 112,821 deaths, or 149.8 per 100,000. This rate, although much lower than that for 1900 (180.5) or for several succeeding years, is higher than that for any year during the period 1908-1916. The lowest recorded rate for pneumonia was 127 per 100,000 in 1914. The mortality from this disease has fluctuated considerably from year to year since 1900, the general tendency having been downward until 1914 and upward from 1914 to 1917.

Tuberculosis in its various forms caused 110,285 deaths, of which 97,047 were due to tuberculosis of the lungs. The death rate from all forms of tuberculosis was 146.4 per 100,000, and from tuberculosis of the lungs, 128.9. The rate from tuberculosis of all forms declined continuously from 200.7 per 100,000 in 1904 to 141.6 per 100,000 in 1916, the decrease amounting to nearly 30 per cent; but for 1917 an increase is shown. Until 1912 more deaths were due to tuberculosis than to any other single cause, but in that year and during the period 1914-1917 the mortality from tuberculosis was less than that from heart diseases, and in 1917 it fell below that from pneumonia also.

Bright's disease and acute nephritis caused 80,912 deaths, or 107.4 per 100,000. The mortality rate from these diseases has increased from 89 per 100,000 in 1900, with some fluctuations from year to year, and since 1914 the increase has been continuous.

Apoplexy was the cause of 62,431 deaths, or 82.9 per 100,000. The rate from this disease increased gradually, with occasional slight declines, from 1900 to 1912, and since 1913 the increase has been continuous.

Cancer and other malignant tumors caused 61,452 deaths, of which number 23,413, or 38 per cent, resulted from cancer of the stomach and liver. The rate from cancer has risen from 63 per 100,000 in 1900 to 81.6 in 1917. The increase has not been continuous, there having been three years—1906, 1911, and 1917—which showed declines as compared with the years immediately preceding. The decrease in 1917 as compared with 1916, however, was very slight—from 81.8 to 81.6. It should be borne in mind that at least a part of the increase in the death rate from cancer may be apparent rather than real, being due to a greater degree of accuracy in diagnosis and to greater care on the part of physicians in making reports to registration officials.

Diarrhea and enteritis caused 59,504 deaths, or 79 per 100,000. The rate from this cause has fallen somewhat in recent years, having been 90.2 in 1913, and is much lower than the corresponding rate for 1900, which was 133.2. More than four-fifths of the total deaths charged to these causes in 1917 were of infants under two years of age.

Arterial diseases of various kinds—atheroma, aneurism, etc.—resulted in 19,055 deaths, or 25.3 per 100,000. The rate from these causes increased continuously from 6.1 in 1900 to 25.6 in 1912, since which year it has fluctuated somewhat without showing any pronounced change.

Influenza was responsible for 12,974 deaths, or 17.2 per 100,000. This rate is the highest shown for any epidemic disease in 1917, but is much lower than the corresponding one for the preceding year, 26.4 per 100,000. The influenza rate, which fluctuates greatly, was higher in 1901, when it stood at

32.2, than in any subsequent year prior to the occurrence of the recent epidemic.

Deaths from diabetes numbered 12,750, or 16.9 per 100,000. The rate from this disease, although slightly lower than in 1916, has risen almost continuously since 1900, when it was 9.7.

Next to that for influenza, the highest rate appearing for any epidemic disease in 1917 was for diphtheria, 16.5 per 100,000, representing 12,453 deaths. The rate from this disease was somewhat higher in 1917 than in the preceding year, when it stood at 14.5 per 100,000.

Bronchitis caused 12,311 deaths, or 16.3 per 100,000. This rate is lower than that for any preceding year except 1916, when it was 16.2. The proportional decline from 1900, for which year the bronchitis rate was 45.7, to 1917, amounting to 64 per cent, was greater than that shown for any other important cause of death.

Typhoid Fever.

Typhoid fever resulted in 10,113 deaths, or 13.4 per 100,000. The mortality rate from this cause also has shown a remarkable reduction since 1900, when it was 35.9, the proportional decrease amounting to 63 per cent. This highly gratifying decline demonstrates in a striking manner the efficiency of improved sanitation and of the modern method of prevention—the use of the anti-typhoid vaccine.

Measles, Whooping Cough, and Scarlet Fever.

These three children's diseases were together responsible for 21,723 deaths of both adults and children, or 28.8 per 100,000. The rates for the three diseases separately were 14.3, 10.4, and 4.2, respectively, as compared with 11.1, 10.2, and 3.3 in 1916. As in 1913 and 1916, the deaths due to measles outnumbered those resulting from either of the other diseases, but in 1914 and 1915 whooping cough caused the greatest mortality. In every year since and including 1910, as well as in several preceding years, measles has caused a greater number of deaths than scarlet fever.

External Causes.

Deaths due to external causes of all kinds —accidental, suicidal, and homicidal—numbered 81,953 in 1917, corresponding to a rate of 108.8 per 100,000 population.

The greatest number of deaths charged to any one accidental cause—11,114, or 14.8 per 100,000—is shown for falls. The rate for this cause varies but slightly from year to year.

Next to falls, the greatest number of accidental deaths—8,649, or 11.5 per 100,000—resulted from railroad accidents and injuries. This rate is greater than the corresponding rates for 1914, 1915, and 1916 (10.7, 9.9, and 11.3, respectively) but is lower than that for any year from 1906—the first year for which deaths from this cause were reported separately—to 1913, inclusive.

Burns—excluding those received in conflagrations and in railroad, street-car, and automobile accidents—were responsible for 6,830 deaths, or 9.1 per 100,000. The death rate from burns was greater than that for the preceding year, 8 per 100,000, and was also greater than the rate for any earlier year covered by the Bureau's records, with the exception of 1907.

Deaths from automobile accidents and injuries in 1917 totaled 6,724, or 8.9 per 100,000 population. This rate has risen rapidly from year to year, but not so rapidly as the rate of increase in the number of automobiles in use.

Accidental drowning caused 5,550 deaths, or 7.4 per 100,000. This rate is considerably less than that for any preceding year since 1910, and is also decidedly below the average for the decade 1901-1910.

Deaths due to accidental asphyxiation (except in conflagrations) numbered 3,375, or 4.5 per 100,000. This rate is somewhat higher that that for any year during the preceding ten-year period.

Mine accidents and injuries resulted in 2,623 deaths, or 3.5 per 100,000. This rate is

greater than the rates for the preceding three years and for 1912, but is lower than those for other recent years.

Deaths due to injuries by vehicles other than railroad cars, street cars, and automobiles numbered 2,326, or 3.1 per 100,000. The rate from this cause has declined somewhat during the past ten years, probably because of the decrease in the use of horse-drawn vehicles.

Deaths resulting from street-car accidents numbered 2,277, corresponding to a rate of 3 per 100,000. This rate is greater than those for the two years preceding and is the same as that for 1912, but is less than the rates for other recent years.

Machinery accidents caused 2,112 deaths, or 2.8 per 100,000, a rate materially greater than that for any preceding year covered by the Bureau's mortality records.

Hot weather caused 1,964 deaths, or 2.6 per 100,000. This rate is considerably above those for most of the years covered by the Bureau's records, but is somewhat lower than 2.9 in 1916 and is far below 5.3 in 1911. The rate from this cause naturally varies greatly from year to year.

The number of suicides reported for 1917 was 10,056, or 13.4 per 100,000. This rate is the lowest shown for any year since 1903.

Other deaths due to external causes, including homicides, totaled 18,353, or 24.4 per 100,000.

NEW AND NONOFFICIAL REMEDIES.

SWAN'S MIXED ACNE BACTERIN (No. 41).—Marketed in 6-cc. vials, each cubic centimeter containing 25 million killed acne bacilli and 500 million killed Staphylococcus pyogenesalbus. For a discussion of "Acne" vaccine, see New and Nonofficial Remedies, 1919, 296. Swan-Myers Company, Indianapolis, Ind.

SWAN'S PERTUSSIS BACTERIN (No. 38; PROPHYLACTIC).—Marketed in packages of three 1-cc. vials, containing, respectively, 50, 100 and 200 million killed pertussis bacilli. For a discussion on Pertussis Bacillus Vaccine, see New and Nonofficial Remedies, 1919, p. 287.

SWAN'S MIXED FURUNCULOSIS BACTERIN (No. 39).—Marketed in 6-cc. vials, each cubic centimeter containing 500 million killed Staphylococcus pyogenes-aureus and 500 million killed Staphylococcus pyogenes-albus. For a discussion of Staphylococcus Vaccines, see New and Nonofficial Remedies, 1919, p. 289.

SWAN'S TYPHOID-PARATYPHOID BACTERIN (No. 42; Prophylactic).—Marketed in packages of three 1-cc. vials, one vial containing 500 million killed typhoid bacilli and 250 million each of paratyphoid bacilli A and B, while the other two vials each contain 1 billion killed typhoid bacilli and 500 million each of parathyphoid bacilli A and B. For a discussion on Typhoid Vaccine, see New and Nonofficial Remedies, 1919, p. 292 (*Jour. A. M. A.*, March 22, 1919, p. 863).

GUAIACOL CARBONATE-S. AND G.—A brand of guaiacol carbonate, U. S. P. Schering and Glatz, Inc., New York. (*Jour. A. M. A.*, Dec. 14, 1918, p. 1997.)

BENZYL BENZOATE-H. W. AND D.—A brand of benzyl benzoate complying with the tests and standards of N. N. R. Hynson, Westcott and Dunning, Baltimore, Md.

SOLUTION OF BENZYL BENZOATE, MISCIBLE-H. W. AND D.—A solution of benzyl benzoate-H. W. and D. in 78 gm. ethyl alcohol emulsified with 2 gm. castile soap. It has the actions and uses of benzyl benzoate. Hynson, Westcott and Dunning, Baltimore, Md.

DIETHYLBARBITURIC ACID-MERCK TABLETS, 5 GRAINS.—Each tablet contains 5 grains of diethylbarbituric acid-Merck. Merck and Co., New York.

SODIUM DIETHYLBARBITURIC ACID-MERCK.—A brand of barbital sodium complying with the N. N. R. standards. The actions, uses and dosage of barbital sodium are described in New and Nonofficial Remedies. Merck and Co., New York.

SODIUM DIETHYLBARBITURIC ACID-MERCK TABLETS, 5 GRAINS.—Each tablet

contains 5 grains of sodium diethylbarbituric acid-Merck. Merck and Co., New York. (*Jour. A. M. A.*, Dec. 28, 1918, p. 2153.)

SALIPYRINE TABLETS, 7½ GRAINS.—Each tablet contains 7.5 grains of salipyrine (see New and Nonofficial Remedies, 1918, p. 275). Riedel and Co., New York.

SOLARGENTUM-SQUIBB.—A compound of silver and gelatin containing from 19 to 23 per cent of silver in colloidal form. It is used in solutions containing from 1 to 25 per cent or more. It is also used in the form of bougies or suppositories. No precipitate is produced when sodium chlorid or albumin solutions are added to solutions of solargentum-Squibb. E. R. Squibb and Sons, New York. (*Jour. A. M. A.*, Oct. 12, 1918, p. 1219.)

PARRESINED LACE-MESH SURGICAL DRESSING.—Net-mesh gauze impregnated with and containing from 45 to 50 per cent of parresine (see New and Nonofficial Remedies, 1918, p. 247). The Abbott Laboratories, Chicago.

TUBERCULIN SUBCUTANEOUS TEST ("T. O.") LEDERLE.—Marketed in vials containing 1 cc. For a description of Old Tuberculin, see New and Nonofficial Remedies, 1919, p. 277.

ANTIDYSENTERIC SERUM (POLYVALENT) LEDERLE.—Prepared from horses immunized against the Shiga, Kruse, Flexner and Hiss types of dysentery bacilli. Marketed in syringes containing 10 cc. each with sterile needle. For a description of antidysenteric serum, see New and Nonofficial Remedies, 1919, p. 269. Schieffelin and Co., New York.

TUBERCULIN "B. E." (BACILLUS EMULSION) LEDERLE.—Marketed in vials containing 1 cc. For a description of New Tuberculin, see New and Nonofficial Remedies, 1919, p. 280. Schieffelin and Co., New York.

PARATYPHOID VACCINE-LEDERLE.—Marketed in packages of three 1-cc. vials, one vial containing 250 million each of paratyphoid bacilli A and B, while each of the other vials contains 500 million each of paratyphoid bacilli A and B. For a description of Typhoid Vaccine, see New and Nonofficial Remedies, 1919, p. 292. Schieffelin and Co., New York.

SCHICK TEST-LEDERLE.—A diphtheria immunity test marketed in vials containing diphtheria toxin sufficient for ten tests, accompanied by the required amount of sterile diluent to make the proper dilution of the toxin. For a description of the Diphtheria Immunity Test (Schick Test), see New and Nonofficial Remedies, 1919, p. 305. Schieffelin and Co., New York (*Jour. A. M. A.*, April 19, 1919, p. 1136).

DIPHTHERIA TOXIN-ANTITOXIN MIXTURE. A far more durable immunity against diphtheria can be established with a mixture of diphtheria toxin and antitoxin than with antitoxin alone. The immunity does not appear until a considerable period of time has elapsed, and hence the mixture is not applicable in an outbreak of disease. In general the overneutralized mixture is preferred. Several doses are usually required to induce immunity. Only those persons who are positive to the Schick test need be immunized, and the progress of the immunization may be determined by the response to this test.

TANNIN ALBUMINATE EXSICCATED-MERCK. — A compound of tannic acid and albumin thoroughly exsiccated and containing about 50 per cent tannic acid in combination. It was first introduced as tannalbin. The use of tannin albuminate is based on the assumption that the tannin would pass the stomach largely unchanged, and thus the astringent action be exercised in the intestine where the compound would be decomposed by the intestinal fluid. It is used in diarrhea, particularly that of children and in phthisis. Merck and Co., New York.

MERCURIALIZED SERUM-LEDERLE. — A brand of mercurialized serum complying with the New and Nonofficial Remedies description. It is marketed as Mercurialized Serum-Lederle, Dilution No. 1 containing mercuric chloride 0.0013 gm. in 30 cc. and Mercurialized Serum-Lederle, Dilution No. 2 containing mercuric chloride 0.0026 gm. in 30 cc. Each is accompanied with an equipment for intraspinal administration. Schief-

felin and Co., New York (*Jour. A. M. A.*, April 26, 1919, p. 1225).

MERCURIALIZED SERUM. — A solution of mercuric chloride in normal horse serum diluted with physiological sodium chloride solution. Mercurialized serum is proposed for the treatment of syphilis, particularly the crebrospinal type. It can be used intraspinally and intravenously.

TUBERCULIN "B. F." (BOUILLON FILTRATE) LEDERLE.—Marketed in vials containing 1 cc. For a description of Tuberculin Denys, see New and Nonofficial Remedies, 1919, p. 280. Schieffelin and Co., New York.

PROPAGANDA FOR REFORM

VALIDITY OF PROVISIONS CONCERNING "PATENT" MEDICINES.—In the proceedings instituted by E. Fougera and Co., Inc., against the City of New York, et al., the Court of Appeals of New York holds that the provision of the sanitary code is not unconstitutional in that it prescribed the formula disclosure of medicines. The purposes and effects of the code were well within the police power and had the object of protecting the public. "No man has a constitutional right to keep secret the composition of substances which he sells to the public as articles of food" (*State v. Aslesen*, 50 Minn. 5, 52 N. W. 220). If that is true of food, it is even more plainly true of drugs. But there was one objection to the ordinance, though one that amendment might correct: that the ordinance did not except existing stores of merchandise in the hands of dealers, in that the board of health exceeded the powers delegated to it (*Jour. A. M. A.*, March 8, 1919, p. 753).

RADIUM TREATMENT OF ARTHRITIS DEFORMANS. — According to New and Nonofficial Remedies it has been claimed that radium emanation is of value in all forms of nonsuppurative, acute, subacute and chronic arthritis (syphilitic and tuberculous excepted), in chronic muscle and joint rheumatism (so-called), in arthritis deformans, in acute and chronic gout, etc. Its chief value is in

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the relief of pain. Curative results seem to be lacking (*Jour. A. M. A.*, April 26, 1919, p. 1245).

PUBLISHER'S NOTES.

After being closed for two years due to government restrictions, prohibiting visitors from the stockyards because of the war, Armour and Company's huge plant in the Chicago stockyards is again open to visitors, an announcement from the company states.

This announcement will prove of interest to not only people who intend to visit Chicago some time this summer, but to many others as well because, the announcement says, "preparations are being made by Armour and Company to open their other plants in various parts of the country so that a trip through a packing plant, which is an educational one, will not just be limited to Chicagoans or visitors in Chicago, but to people in fifteen different parts of the United States, where Armour and Company have packing plants. Uniformed guides are in attendance to explain the various interesting things to be seen."

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